

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 33223P WO	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/EP2004/007391	International filing date (day/month/year) 06.07.2004	Priority date (day/month/year) 11.07.2003
International Patent Classification (IPC) or national classification and IPC C08G18/28, C09D175/04, C08G18/G2, C08G18/38, C08G18/62, C08G18/71		
Applicant CONSTRUCTION RESEARCH & TECHNOLOGY GMBH		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising: <ul style="list-style-type: none"> a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <u>13</u> sheets, as follows: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/007391

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:

- international search (Rule 12.3 and 23.1(b))
- publication of the international application (Rule 12.4)
- international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished
 the description:
 pages 1-27 _____ as originally filed/furnished
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____
 the claims:
 nos. _____ as originally filed/furnished
 nos.* _____ as amended (together with any statement) under Article 19 03.02.2005 with letter
 nos.* 1-41 received by this Authority on of 03.02.2005
 nos.* _____ received by this Authority on _____
 the drawings:
 sheets _____ as originally filed/furnished
 sheets* _____ received by this Authority on _____
 sheets* _____ received by this Authority on _____
 a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. The amendments have resulted in the cancellation of:

- the description, pages _____
- the claims, nos. _____
- the drawings, sheets/figs _____
- the sequence listing (*specify*): _____
- any table(s) related to sequence listing (*specify*): _____

4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- the description, pages _____
- the claims, nos. _____
- the drawings, sheets/figs _____
- the sequence listing (*specify*): _____
- any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/007391

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1-41</u>	YES
	Claims	_____	NO
Inventive step (IS)	Claims	<u>1-41</u>	YES
	Claims	_____	NO
Industrial applicability (IA)	Claims	<u>1-41</u>	YES
	Claims	_____	NO

2. Citations and explanations (Rule 70.7)

This report makes reference to the following document:

D1: EP 0 405 534 A (cited in the application)

1. Novelty (PCT Article 33(2)) / Inventive step (PCT Article 33(3))

The subject matter of the current claims **1-41** is novel in comparison with the prior art as cited in the international search report.

None of the documents cited in the international search report discloses a fluorine-modified, one- or two-component polyurethane resin obtainable by producing a fluorine-modified polyurethane prepolymer with free NCO, amino and/or hydroxyl groups or a fluorine-modified polyol mixture, followed by reaction with atmospheric humidity (one-component application) or with a cross-linking component, a formulation component (F) and a catalyst, the stated prepolymer being produced from a fluorine-modified macromonomer, a

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polymolecular and a low-molecular polyol component and a polyisocyanate component, a method for the production thereof and the use thereof.

The subject matter of the current claims **1-41** also involves an inventive step, since document D1, which can be regarded as the closest prior art, does not, either alone or in combination with any other document cited in the international search report, suggest the claimed fluorinated polyurethane resin and the method for the production thereof for the following reasons:

D1 discloses fluorinated polyurethanes for the protective coating of lithoidal materials, said polyurethanes being produced from a diisocyanate, a perfluorinated monoalcohol and butane diol. The fluorinated polyurethane resin as per the present application differs from D1 by virtue of the subsequent reaction of the fluorinated macromonomer, produced from a polyisocyanate, a perfluorinated monoalcohol and diethanol amine, with the above-mentioned polyols and a polyisocyanate component.

The technical problem of interest is that of developing fluorine-modified polyurethane resins for treating the surfaces of mineral and non-mineral foundations so that they permanently repel oil and water, with satisfactory properties in respect of application technology. That problem was solved by the aforementioned coating

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composition, which results in coating surfaces with a low level of critical surface tension and a high number of contact angles, with good anti-graffiti and anti-soiling properties (see page 21, lines 18-21). D1 shows a different solution and contains nothing to indicate a modification or combination of that solution. The disclosure of the present application is therefore considered to be novel and non-inventive.

2. Industrial applicability (PCT Article 33(4))

The application concerns fluorine-modified one- or two-component polyurethane resins for coating purposes and is therefore industrially applicable.